

TOP 10 THREATS

to California Agriculture and Food Safety

1 MAD COW DISEASE

Bovine spongiform encephalopathy (BSE), also known as "mad cow disease," is a fatal neurological disease of cattle.

2 FOOT & MOUTH DISEASE

This highly contagious viral disease affects commercial livestock such as cattle, sheep and pigs, as well as deer and other cloven-footed domestic and wild animals. Because it spreads rapidly and has grave consequences to animal welfare and international trade, FMD is one of the most feared animal diseases.

Ever-increasing rates of personal travel and commerce put our environment and our agriculture at serious risk from the unintentional introduction of exotic and invasive strains and species. These range from plants and animals to insect pests and diseases. Invasive species are considered the second greatest threat to biological diversity (after habitat loss). Ecologists increasingly refer to these invasive organisms as "biological pollution."

Invasive pests and diseases generally share three things in common: They came to California from other parts of the globe; international travel or commerce brought them here; and their new home has many of the attributes of their native environment, but typically none of their enemies (predators, parasites, etc.), giving them an unnatural advantage over our native species.

6 CROP DISEASES

Pierce's disease, plum pox potyvirus, sudden oak death, fungi, mycoplasma, bacteria... the list of crop diseases that threaten our food supply or food safety is always growing.

7 INVASIVE PESTS

A few of the most serious agricultural pests include glassy-winged sharpshooters, fruit flies, red imported fire ants, Asian longhorned beetles, Japanese beetles and gypsy moths.



3 EXOTIC NEWCASTLE DISEASE

Also known simply as END, this viral disease is one of the most contagious and fatal maladies known to affect birds. An outbreak in 2002-2003 was discovered in backyard poultry in Southern California, and eventually affected birds on over 2,500 premises. To eradicate the disease, 3.2 million birds were euthanized. The project cost \$170 million.



8 FOODBORNE PATHOGENS

Outbreaks of salmonella, listeria, e-coli and other foodborne pathogens are relatively rare in California, but their severe and sometimes fatal health consequences, particularly among infants, children and the elderly, make them among the most serious food safety concerns.

9 BRUCELLOSIS

Brucellosis is an infectious disease caused by bacteria that are primarily passed among animals, causing disease in sheep, goats, cattle, deer, elk, pigs, dogs, and several other animals. Humans become infected by coming in contact with animals or animal products that are contaminated with these bacteria. In humans, brucellosis can cause a range of symptoms that are similar to the flu and may include fever, sweats, headaches, back pains, and physical weakness. Severe infections of the central nervous systems or lining of the heart may occur. Brucellosis can also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain, and fatigue.

4 AVIAN INFLUENZA

Avian influenza is an infectious disease of birds caused by type-A strains of the influenza virus. The disease occurs worldwide. All birds are thought to be susceptible, though some species are more resistant. Infection causes a wide spectrum of symptoms in birds, ranging from mild illness to a highly contagious and rapidly fatal disease resulting in severe epidemics. The latter is known as "highly pathogenic avian influenza." Some strains of avian influenza can also cause disease in humans.

5 BOVINE TB

This chronic lung disease can affect most mammals, and its presence anywhere in the state presents a public health risk. California lost its "TB-Free" status in 2003 when the disease was confirmed in two dairies and a meat packing facility, severely limiting the ability of our \$6 billion beef and dairy industries to market and transport their animals.



10 LACK OF AGRICULTURAL AWARENESS!

If you were to ask most Californians where their food comes from, they would probably answer, "The supermarket." Californians may take it for granted, but our fertile valleys give us the world's safest, most abundant and most diverse food supply. Each year, thousands of acres of irreplaceable farmland are lost, along with the livelihoods that were derived from them. Now, let's try that again...

Where does your food come from?